

Federal Reserve Policy Statement on Payments System Risk

As amended effective January 4, 1999

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INTRODUCTION

The Federal Reserve System has developed this policy statement to address payments system risk. Risk can arise from transactions on the Federal Reserve's wire transfer system (Fedwire), from other types of payments, including checks and automated clearinghouse (ACH) transactions, and from transactions on private large-dollar networks that permit their participants to transmit payment messages throughout the day with settlement of net positions at the end of the day. This policy statement is addressed primarily to large-dollar payments systems¹ and incorporates the Federal Reserve's policies to reduce Federal Reserve risk as well as risk on various types of private-sector networks.

The Federal Reserve Banks face direct risks of loss should depository institutions² be unable to settle their intraday ("daylight") overdrafts in their Federal Reserve accounts before the end of the day. Moreover, systemic risk may occur if an institution participating on a private large-dollar payments network were unable or unwilling to settle its net debit position. If this were to occur, the institution's creditors on that network might also be unable to settle their commitments. Serious repercussions could, as a result, spread to other participants in the private network, to other depository institutions not participating in the

¹ In a changing technological and regulatory environment, it is not possible or desirable to adopt an all-inclusive and permanent definition of a "large-dollar payments system" for the purposes of Federal Reserve risk-control policy. In determining whether any particular system is a large-dollar system, the Board will consider any of the following four factors: (1) the employment of multilateral netting arrangements, (2) the use of same-day settlement, (3) the routine processing of a significant number of individual payments larger than \$50,000, and (4) the possibility that any one participant could be exposed to a net debit position at the time of settlement in excess of its capital.

² In this policy statement, the terms "depository institution" or "institution" will be used to refer not only to institutions defined as "depository institutions" by 12 USC 461(b)(1)(A), but also to U.S. branches and agencies of foreign banks, Edge and agreement corporations, and banker's banks, unless the context indicates a different reading.

network, and to the nonfinancial economy generally. A Reserve Bank could be exposed to an indirect risk if its policies did not address this systemic risk. Finally, depository institutions create risk by permitting their customers, including other depository institutions, to transfer uncollected balances in anticipation of their coverage before the end of the day.

The Board is aware that large-dollar networks are an integral part of the clearing and settlement systems and that it is of vital importance to keep the payments mechanism operating without significant disruption. It is because of the importance of avoiding such disruptions that the Board continues to seek to reduce the risks of settlement failures that could cause these disruptions. The Board is also aware that some intraday credit may be necessary to keep the payments mechanism running smoothly and efficiently. The reduction and control of intraday credit risks, although essential, must be accomplished in a manner that will minimize disruptions to the payments mechanism. The Board anticipates that, by relying largely on the efforts of individual institutions to identify, control, and reduce their own exposures, and by establishing guidelines for use by institutions, the goal of reducing and controlling risks will not unduly disrupt the smooth operation of the payments mechanism.

The Board emphasizes that it is not condoning daylight overdrafts in Federal Reserve accounts. Although some intraday credit may be necessary, the Board anticipates that, as a result of its policies, there will continue to be a reduction in the number of institutions consistently relying on intraday credit supplied by the Federal Reserve to conduct their business. The Board also expects to continue observing, over time, a reduction in the volume of intraday credit at those institutions with a pattern of substantial reliance on such credit. The Board will continue to monitor the effect of its policies on the payments system.

The general methods used to control intraday credit exposures are explained in the policies below. These methods include caps on net debits incurred by depository institutions in their accounts at Federal Reserve Banks, collateralization, in certain situations, of overdrafts at the Federal Reserve due to book-

entry securities transactions, bilateral credit limits between institutions on private large-dollar networks, and credit and liquidity safeguards for private delivery-against-payment systems. To assist depository institutions in implementing the Board's policies, the Federal Reserve has prepared two documents, the "Overview of the Federal Reserve's Payments System Risk Policy" and the "Guide to the Federal Reserve's Payments System Risk Policy," which are available from any Reserve Bank [contact the Bank's daylight overdraft officer]. The "Overview of the Federal Reserve's Payments System Risk Policy" provides a summary of the Board's policy on payments system risk, including daylight overdraft net debit caps and fees. The overview is intended for use by institutions that incur only small and infrequent daylight overdrafts. The "Guide to the Federal Reserve's Payments System Risk Policy" explains in detail how the policies apply to various types of institutions and includes procedures for completing a self-assessment and filing a cap resolution, as well as information on other aspects of the payments system risk policy.

I. FEDERAL RESERVE POLICY

A. Daylight Overdraft Definition

A daylight overdraft occurs when a depository institution's Federal Reserve account is in a negative position during the business day. The Reserve Banks use an ex post system to measure daylight overdrafts in depository institutions' Federal Reserve accounts. The procedures used result in Fedwire funds and book-entry securities transfers being posted as they are processed during the business day. Intraday accounting for automated clearinghouse (ACH) and nonwire transactions is based on a quasi-real-time accounting approach. The following table presents the detail of the procedures used by the Federal Reserve for measuring daylight overdrafts.

Modified Procedures for Measuring Daylight Overdrafts³

Opening Balance (Previous Day's Closing Balance)

Post at 8:30 a.m. Eastern Time:

- +/- Government and commercial ACH credit transactions
- + Treasury Electronic Federal Tax Payment System (EFTPS) investments from ACH credit transactions
- + Advance-notice Treasury investments
- + Treasury state and local government series (SLGs) interest and redemption payments
- + Treasury checks, postal money orders, local Federal Reserve Bank checks, and EZ-Clear savings bond redemptions in separately sorted deposits

Post Throughout Business Day:

- +/- Fedwire funds transfers
- +/- Fedwire book-entry securities transfers
- +/- Net settlement entries⁴

Post by 9:15 a.m. Eastern Time:

- + U.S. Treasury and government agency book-entry interest and redemption payments
- + U.S. Treasury and government agency matured coupons and definitive securities received before the maturity date

Post Beginning at 9:15 a.m. Eastern Time:

- Original issues of Treasury securities⁵

Post at 11:00 a.m. Eastern Time:

- +/- ACH debit transactions
- + EFTPS investments from ACH debit transactions

Post at 11:00 a.m. Eastern Time and Hourly Thereafter:

- +/- Commercial check transactions, including return items
- +/- Check correction amounting to \$1 million or more
- + Currency and coin deposits
- + Credit adjustments amounting to \$1 million or more

Post by 1:00 p.m. Eastern Time:

- + Same-day Treasury investments

Post at 2:00 p.m. Eastern Time:

- + Processed manual letters of credit⁶

Post at 5:00 p.m. Eastern Time:

- + Treasury checks, postal money orders, and EZ-Clear savings bond redemptions in separately sorted deposits. These items must be presented by 4:00 p.m. eastern time.
- + Local Federal Reserve Bank checks. These items must be presented before 3:00 p.m. eastern time.
- + Processed manual letters of credit
- +/- Same-day ACH transactions. These transactions include ACH return items, check-truncation items, and flexible settlement items.

Post After the Close of Fedwire Funds Transfer System:

- +/- All other non-Fedwire transactions. These transactions include the following: local Federal Reserve Bank checks presented after 3:00 p.m. eastern time but before 3:00 p.m. local time; noncash collection; credits for U.S. Treasury and government agency definitive

³ The posting changes do not affect the overdraft restrictions and overdraft-measurement provisions for nonbank banks established by the Competitive Equality Banking Act of 1987 and the Board's Regulation Y (12 CFR 225.52).

⁴ Settlement entries from the "settlement sheet" service will be posted on the next clock hour approximately one hour after settlement data are received by the Reserve Banks. The settlement sheet service will be discontinued by year-end 2001. Settlement entries from the enhanced settlement service will be posted on a flow basis as they are processed.

⁵ Original issues of government agency securities are delivered as book-entry securities transfers and will be posted when the securities are delivered to the purchasing institutions.

⁶ Letters-of-credit transactions are drawdowns of government grants.

security interest and redemption payments if the coupons or securities are received on or after the maturity date; Treasury Tax and Loan (TT&L) calls; subscriptions for SLGS; currency and coin shipments; small-dollar credit adjustments; all debit adjustments; and small-dollar check collections. Discount-window loans and repayments are normally posted after the close of Fedwire as well; however, in unusual circumstances a discount window loan may be posted earlier in the day with repayment 24 hours later, or a loan may be repaid before it would otherwise become due.

Equals:

Closing balance

B. Pricing

Each Reserve Bank will charge a fee for average daily daylight overdrafts in Federal Reserve accounts. Reserve Banks will deduct from the gross fee an amount equal to 10 percent of qualifying capital valued at the fee for a 10-hour operating day. Fees of \$25 or less in any two-week interval will be waived.

The overdraft fee is 36 basis points (annual rate), quoted on the basis of a 24-hour day. To obtain the daily overdraft fee (annual rate) for the standard Fedwire operating day, the quoted 36-basis-point fee is multiplied by the fraction of a 24-hour day during which Fedwire is scheduled to operate. For example, under an 18-hour scheduled Fedwire operating day, the overdraft fee equals 27 basis points (36 basis points multiplied by 18/24). The 36-basis-point fee is effective April 13, 1995.

The 36-basis-point fee (times an operating hour fraction) will be in effect for at least two years. A change in the length of the scheduled Fedwire operating day would not change the effective fee because the fee is applied to average overdrafts which, in turn, would be deflated by the change in the operating day. The Board will evaluate the desirability of an increase in the daylight overdraft fee, based on the objectives of the payments system risk program, two years after the implementation of

the 36-basis-point fee. Any changes in the fee resulting from that review will be announced with a reasonable lead time for implementation.

The fee applies to combined funds and book-entry securities daylight overdrafts in accounts at the Federal Reserve. The average daily overdraft is calculated by dividing the sum of the negative Federal Reserve account balances at the end of each minute of the scheduled Fedwire operating day (with credit balances set to zero) by the total number of minutes in the scheduled Fedwire operating day.

The gross fee for daylight overdrafts will be reduced by the amount of a deductible, valued at the daylight overdraft fee for a 10-hour operating day. The deductible is an amount equal to 10 percent of qualifying capital, i.e., that capital used by the institution in calculating its next debit cap. (See section (I)(C), "Capital.") Because the fee applicable to the deductible is kept constant at the 10-hour-operating-day rate, any changes to the scheduled Fedwire operating day will not affect the value of the deductible.

The pricing deductible is independent of the exempt-from-filing test under the net-debit-cap policy. (See section (I)(D)(3), "Exemption from Filing.") Depository institutions are exempt from filing for a cap if their *peak* overdrafts do not exceed the lesser of 20 percent of their capital and \$10 million. The deductible (valued at the fee for a 10-hour operating day) is subtracted from the gross fee for *average* overdrafts. An institution could be exempt from filing for a cap but be subject to pricing because its average overdrafts were over 10 percent of its capital. It could also have to file for a cap because its peak overdrafts exceeded the lesser of 20 percent of its capital and \$10 million, but be exempt from pricing because its average overdrafts were less than 10 percent of its capital.

C. Capital

1. U.S.-Chartered Institutions

For depository institutions chartered in the United States, net debit caps are multiples of "qualifying" or similar capital measures that consist of those capital instruments that can be

used to satisfy risk-based capital standards, as set forth in the capital adequacy guidelines of the federal financial regulatory agencies. All of the federal financial regulatory agencies collect, as part of their required reports, data on the amount of capital that can be used for risk-based purposes—“qualifying” capital for commercial and savings banks, “risk-based” capital for savings and loan associations, and total regulatory reserves for credit unions. Other U.S.-chartered entities that incur overdrafts in Federal Reserve accounts should provide similar data to their Reserve Banks.

In some instances, further adjustments to capital are required. For example, virtually all Edge and agreement corporations are subsidiaries of depository institutions that may themselves use intraday credit. Capital would be double-counted if both the parent and the Edge or agreement corporation subsidiary used intraday credit based on their own capital bases. Accordingly, if a parent elects to permit its Edge or agreement corporation subsidiary to use daylight credit, any risk-based capital attributable to the Edge or agreement corporation subsidiary that is reflected on the parent's balance sheet must be subtracted from the parent's capital. The parent may choose, however, to use all of its capital for its own cap and to prohibit its Edge or agreement corporation subsidiary from using intraday credit.

2. *U.S. Agencies and Branches of Foreign Banks*

For U.S. agencies and branches of foreign banks, net debit caps on daylight overdrafts in Federal Reserve accounts are calculated by applying the cap multiples for each cap category to consolidated “U.S. capital equivalency.”⁷

For a foreign bank whose home-country supervisor adheres to the Basle Capital Accord, U.S. capital equivalency is equal to the greater of 10 percent of worldwide capital or 5 percent of the total liabilities of each agency or branch, including acceptances, but excluding accrued expenses and amounts due and other liabilities to offices, branches, and subsidiaries of the foreign bank. In the absence of contrary information, the Reserve Banks presume that

all banks chartered in G-10 countries meet the acceptable prudential capital and supervisory standards and will consider any bank chartered in any other nation that adopts the Basle Capital Accord (or requires capital at least as great and in the same form as called for by the accord) eligible for the Reserve Banks' review for meeting acceptable prudential capital and supervisory standards.

For all other foreign banks, U.S. capital equivalency is measured as the greater of (1) the sum of the amount of capital (but not surplus) that would be required of a national bank being organized at each agency or branch location, or (2) the sum of 5 percent of the total liabilities of each agency or branch, including acceptances, but excluding accrued expenses and amounts due and other liabilities to offices, branches, and subsidiaries of the foreign bank.

In addition, any foreign bank may incur daylight overdrafts above its net debit cap up to a maximum amount equal to its cap multiple times 10 percent of its worldwide capital, provided that any overdrafts above its net debit cap are collateralized. This policy offers all foreign banks, under terms that reasonably limit Reserve Bank risk, a level of overdrafts based on the same proportion of worldwide capital. Consequently, banks chartered in countries that follow the Basle Accord and whose net debit cap is based on 10 percent of worldwide capital are not permitted to incur overdrafts above their net debit cap. All other foreign banks may incur overdrafts to the same extent as banks from Basle Accord countries, that is, up to their cap multiple times 10 percent of their worldwide capital, provided that sufficient collateral is posted for any overdrafts in excess of their net debit cap. In addition, foreign banks may elect to collateralize all or a portion of their overdrafts related to book-entry securities activity.

D. Net Debit Caps

To limit the aggregate amount of daylight credit extended by Reserve Banks, each institution that incurs daylight overdrafts in its Federal Reserve account must adopt a net debit cap, i.e., a ceiling on the aggregate net debit position that it can incur during a given interval. Alternatively, if an institution's daylight overdrafts generally do not exceed the lesser of \$10 million or 20 percent of

⁷ The term “U.S. capital equivalency” is used in this context to refer to the particular capital measure used to calculate daylight overdraft net debit caps, and does not necessarily represent an appropriate capital measure for supervisory or other purposes.

capital, the institution may qualify for the exempt-from-filing status. Subject to the provisions for special situations described below, an institution must be financially healthy and eligible to borrow from the discount window in order to adopt a cap greater than zero or qualify for the filing exemption.

Cap categories and associated cap levels, set as multiples of capital, are listed below:

Net Debit Cap Multiples

<i>Cap Category</i>	<i>Two-Week Avg.</i>	<i>Single Day</i>
High	1.50	2.25
Above Avg.	1.125	1.875
Average	0.75	1.125
De Minimis	0.40	0.40
Exempt-from-filing	\$10 million	\$10 million
	(0.20)	(0.20)
Zero	0.0	0.0

An institution is expected to avoid incurring net debits that, on average over a two-week period, exceed the two-week average cap, and, on any day, exceed the single-day cap. The two-week average cap provides flexibility, in recognition that fluctuations in payments can occur from day to day. The purpose of the higher single-day cap is to limit excessive daylight overdrafts on any day and to ensure that institutions develop internal controls that focus on the exposures each day, as well as over time.

The two-week average cap is measured against the average, over a two-week reserve-maintenance period, of an institution's daily maximum net debit positions in its Federal Reserve account. In calculating the two-week average, individual days on which an institution is in an aggregate net credit position throughout the day are treated as if the institution was in a net position of zero. The number of days used in calculating the average is the number of business days the institution's Reserve Bank is open during the reserve-maintenance period.

The Board's policy on net debit caps is based on a specific set of guidelines and some degree of examiner oversight. Under the Board's policy, a Reserve Bank may prohibit the use of Federal Reserve intraday credit if (1)

an institution's use of daylight credit is deemed by the institution's supervisor to be unsafe or unsound; (2) an institution does not qualify for a cap exemption, does not perform a self-assessment, or does not file a board-of-directors-approved de minimis cap; and (3) an institution poses an excessive risk to a Reserve Bank.

The net-debit-cap provisions of this policy apply to foreign banks to the same extent as they apply to U.S. institutions. The Reserve Banks will advise home-country supervisors of banks with U.S. branches and agencies of the daylight overdraft capacity of banks under their jurisdiction, as well as of other pertinent conditions related to their caps. Home-country supervisors that request information on the overdrafts in the Federal Reserve accounts of their banks will be provided that information on a regular basis.

1. Cap Set Through Self-Assessment

In order to establish a net debit cap category of Average, Above Average, or High, an institution must perform a self-assessment of its own creditworthiness, intraday funds management and control, customer credit policies and controls, and, effective January 1, 1995, operating controls and contingency procedures.⁸ The assessment of creditworthiness should be based on the institution's supervisory rating and Prompt Corrective Action capital category. An institution may be permitted to perform a full assessment of its creditworthiness in certain limited circumstances, for example, if its condition has changed significantly since its last examination, or if it possesses additional substantive information regarding its financial condition. Additionally, U.S. branches and agencies of foreign banks based in countries that do not adhere to the Basle Capital Accord are required to perform a full assessment of creditworthiness to determine their ratings for the creditworthiness component. An institution performing a self-assessment must also evaluate its intraday funds-management

⁸ This assessment should be done on an individual-institution basis, treating as separate entities each commercial bank, each Edge corporation (and its branches), each thrift institution, etc. An exception is made in the case of U.S. agencies and branches of foreign banks. Because these entities have no existence separate from the foreign bank, all the U.S. offices of foreign banks (excluding U.S.-chartered bank subsidiaries and U.S.-chartered Edge subsidiaries) should be treated as a consolidated family relying on the foreign bank's capital.

procedures and its procedures for evaluating the financial condition of and establishing intraday credit limits for its customers. Finally, the institution must evaluate its operating controls and contingency procedures to determine if they are sufficient to prevent losses due to fraud or system failures. The “Guide to the Federal Reserve’s Payments System Risk Policy,” available from any Reserve Bank, includes a detailed explanation of the steps that should be taken by a depository institution in performing a self-assessment to establish a net debit cap.

Each institution’s board of directors is expected to review the self-assessment and determine the appropriate cap category. The process of self-assessment, with board-of-directors review, should be conducted at least once in each 12-month period. A cap determination may be reviewed and approved by the board of directors of a holding company parent of a depository institution, or the parent of an Edge or agreement corporation, provided that (1) the self-assessment is performed by each entity incurring daylight overdrafts, (2) the entity’s cap is based on the entity’s own capital (adjusted to avoid double-counting), and (3) each entity maintains for its primary supervisor’s review its own file with supporting documents for its self-assessment and a record of the parent’s board-of-directors review.⁹

In applying these guidelines, each institution is expected to maintain a file for examiner review that includes (1) worksheets and supporting analysis developed in its self-assessment of its own risk category, (2) copies of senior-management reports to the board of directors of the institution or its parent (as appropriate) regarding that self-assessment, and (3) copies of the minutes of the discussion at the appropriate board-of-directors meeting concerning the institution’s adoption of a cap category.¹⁰

As part of its normal examination, the depository institution’s examiners will review the contents of the self-assessment file.¹¹ The objective of this review is to ensure that the institution has applied the guidelines seriously and diligently, that the underlying analysis and methodology were reasonable, and that the resultant self-assessment was generally consistent with the examination findings. Examiner comments, if any, should be forwarded to the board of directors of the institution. The examiner, however, would generally not require a modification of the self-assessment cap category unless the level of daylight credit used by the institution constitutes an unsafe or unsound banking practice.

The contents of the self-assessment cap category file will be considered confidential by the institution’s examiner. Similarly, the actual cap level selected by the institution will be held confidential by the Federal Reserve and the institution’s examiner. (However, cap information will be shared with the home-country supervisor of agencies and branches of foreign banks.)

2. *De Minimis Cap*

Many depository institutions incur relatively small overdrafts and thus pose little risk to the Federal Reserve. To ease the burden on these small overdrafters of engaging in the self-assessment process and to ease the burden on the Federal Reserve of administering caps, the Board will allow institutions that meet reasonable safety standards to incur *de minimis* amounts of daylight overdrafts without performing a self-assessment. A depository institution may incur daylight overdrafts up to 40 percent of capital, if a board-of-directors resolution is submitted.

Reserve Banks will review the status of a *de minimis* cap institution that exceeds its cap

⁹ A foreign bank should undergo the same self-assessment process as a domestic bank in determining a net debit cap for its U.S. branches and agencies. Many foreign banks, however, do not have the same management structure as U.S. depository institutions, and adjustments should be made as appropriate. Where a foreign bank’s board of directors has a more limited role to play in the bank’s management than a U.S. board, the self-assessment and cap category should be reviewed by senior management at the foreign bank’s head office that exercises authority over the foreign bank equivalent to the authority exercised by a board of directors over a U.S. depository institution. In cases where the board of directors exercises authority equivalent to that of a U.S. board, cap determination should be made by the board of directors.

¹⁰ In most cases, it may not be possible for the U.S. examiners to review the

minutes of the meeting of a foreign bank’s board of directors or other appropriate management group at which the self-assessment was discussed. In lieu of this, the file on the self-assessment that is made available for examiner review by the U.S. offices of a foreign bank should contain the report on the self-assessment made to the foreign bank’s senior management by the management of U.S. operations. In addition, the file should also contain a record of the appropriate senior management’s response. As in the case of U.S. institutions, this review and confirmation should be completed every year.

¹¹ Between examinations, examiners or Reserve Bank staff may contact an institution about its cap if statistical or supervisory reports or ad hoc information suggest that there may have been a change in the institution’s position.

on a single day or, on average, over a two-week reserve-maintenance period and will decide if the de minimis cap should be maintained or if the institution will be required to perform a self-assessment and file for a higher cap. An institution choosing to use a de minimis cap must submit to its Reserve Bank at least once each year a copy of the resolution of its board of directors (or its holding company's board) approving the depository institution's use of daylight credit up to the de minimis level.

3. Exemption from Filing

Depository institutions that only rarely incur overdrafts in their Federal Reserve accounts that exceed the lesser of \$10 million or 20 percent of their capital are excused from performing self-assessments and filing board-of-directors resolutions with their Reserve Banks. This dual test is designed to limit the filing exemption to depository institutions that create only low-dollar risks to the Reserve Banks and that incur small overdrafts relative to their capital.

The Reserve Bank will review the status of an exempt depository institution that incurs overdrafts in its Federal Reserve account in excess of \$10 million or 20 percent of capital on more than two days in any two rolling two-week reserve-maintenance periods. The Reserve Bank will decide if the exemption should be maintained or if the institution will be required to file for a cap. Even for depository institutions meeting the size and frequency standards, the exemption would be granted at the discretion of the Reserve Bank.

4. Special Situations

Special risks are presented by the participation on Fedwire of Edge and agreement corporations, bankers' banks that are not subject to reserve requirements, limited-purpose trust companies, and institutions that have been assigned a cap of zero by their Reserve Banks. Most of these institutions lack regular discount-window access. In developing its policy for these institutions, the Board has sought to balance the goal of reducing and managing risk in the payments system, including risk to the Federal Reserve, with that of minimizing the adverse effects on the payments operations of these institutions.

Regular access to the Federal Reserve discount window generally is available to institutions that are subject to reserve requirements. If an institution that is not subject to reserve requirements and thus does not have regular discount-window access were to incur a daylight overdraft, the Federal Reserve may face the necessity of extending overnight credit to that institution if the daylight overdraft is not covered by the end of the business day. This credit would be contrary to the quid pro quo of reserves for discount-window access established in the Federal Reserve Act and Board regulations. In addition, the Board expects that assessing a fee for daylight overdrafts could lead to an intraday funds market, similar to the current overnight funds market. As daylight credit begins to have significant value, daylight overdrafts in accounts at the Federal Reserve will begin to appear more and more like overnight extensions of credit by Reserve Banks. Thus, institutions that do not have regular access to the discount window should not incur either overnight overdrafts *or* daylight overdrafts in their Federal Reserve accounts.

As set out below, Edge and agreement corporations, bankers' banks that are not subject to reserve requirements, and limited-purpose trust companies are subject to a daylight-overdraft penalty fee levied against the average daily daylight overdraft incurred by the institution. The annual rate for the daylight-overdraft penalty fee is equal to the annual rate applicable to the daylight overdrafts of other depository institutions (i.e., the rate set forth in section (I)(B)) *plus* 100 basis points, adjusted to take account of the Fedwire operating day (multiplied by the fraction of the day Fedwire is scheduled to operate). The daily daylight penalty rate is calculated by dividing the annual penalty rate by 360.

The penalty fee applies to the institution's average daily daylight overdraft in accounts at the Federal Reserve. The average daily overdraft is calculated by dividing the sum of the negative Federal Reserve account balances at the end of each minute of the scheduled Fedwire operating day (with positive balances set to zero) by the total number of minutes in the scheduled Fedwire operating day. The penalty fee is charged in lieu of, not in addition to, the daylight-overdraft fee described in

section (I)(B) and is effective April 14, 1994.

Overnight overdrafts for these institutions are treated similarly to overnight overdrafts of other depository institutions.

a. **Edge and agreement corporations.**¹² Edge and agreement corporations should refrain from incurring daylight overdrafts in their reserve or clearing accounts. In the event that any daylight overdrafts occur, the Edge or agreement corporation must post collateral to cover the overdrafts. In addition to posting collateral, the Edge or agreement corporation would be subject to a daylight-overdraft penalty fee levied against the average daily daylight overdrafts incurred by the institution, as described above.

This policy reflects the lack of access of these institutions to the discount window and the possibility that the parent of an Edge or agreement corporation may be unable or unwilling to cover its subsidiary's overdraft on a timely basis. The Board notes that the parent of an Edge or agreement corporation could fund its subsidiary during the day over Fedwire and/or the parent could substitute itself for its subsidiary on private networks. Such an approach by the parent could both reduce systemic risk exposure and permit the Edge or agreement corporation to continue to service its customers. Edge and agreement corporation subsidiaries of foreign banks are treated in the same manner as their domestically owned counterparts.

b. **Bankers' banks.**¹³ Bankers' banks are exempt from reserve requirements and do not have regular access to the discount window. They do, however, have access to Federal Reserve payments services. The Board's policy provides that bankers' banks should refrain from incurring overdrafts and post collateral to cover any overdrafts they do incur. In addition to posting collateral, a bankers' bank would be subject to a daylight-overdraft penalty fee levied against the average daily daylight

overdrafts incurred by the institution, as described above.

The Board's policy for bankers' banks reflects the need to protect Reserve Banks from potential losses resulting from daylight overdrafts incurred by bankers' banks. The policy also reflects the fact that some bankers' banks do not incur the costs of maintaining reserves as do other depository institutions and do not have regular access to the discount window and the similarity between overdrafts and discount-window credit.

Bankers' banks may voluntarily waive their exemption from reserve requirements, thus gaining access to the discount window. Such bankers' banks would be free to establish caps and would be subject to the same policy as other depository institutions. The policy set out in this section applies only to those bankers' banks that have not waived their exemption from reserve requirements.

c. **Limited-purpose trust companies.**¹⁴ The Federal Reserve Act permits the Board to grant Federal Reserve membership to limited-purpose trust companies subject to conditions the Board may prescribe pursuant to the act. As a general matter, member limited-purpose trust companies do not accept reservable deposits, do not have regular discount-window access, and may not incur daylight overdrafts.

Limited-purpose trust companies are subject to the same daylight-overdraft penalty fees as other institutions that do not maintain reserves and do not have regular discount-window access. Limited-purpose trust companies should refrain from incurring overdrafts and should post collateral to cover any overdrafts they do incur. In addition to posting collateral, a limited-purpose trust company would be subject to a daylight-overdraft penalty fee levied against the average daily daylight overdrafts incurred by the institution, as described above.

d. **Zero-cap depository institutions.** Some depository institutions have caps of zero that are imposed by Reserve Banks because of the institutions' financially troubled status or failure to comply with the Board's payments

¹² These institutions are organized under section 25A of the Federal Reserve Act (12 USC 611–631) or have an agreement or undertaking with the Board under section 25 of the Federal Reserve Act (12 USC 601–604a).

¹³ For the purposes of this policy statement, a bankers' bank is a financial institution that is not required to maintain reserves under the Board's Regulation D (12 CFR 204) because it is organized solely to do business with other financial institutions, is owned primarily by the financial institutions with which it does business, and does not do business with the general public and is not a depository institution as defined in the Board's Regulation A (12 CFR 201.2(a)).

¹⁴ For the purposes of this policy statement, a limited-purpose trust company is a trust company that is a member of the Federal Reserve System but that does not meet the definition of "depository institution" in section 19(b)(1)(A) of the Federal Reserve Act (12 USC 461(b)(1)(A)).

system risk policy or because the institution itself requested a zero cap. Regardless of whether it has access to the discount window, if a depository institution on which a Reserve Bank has imposed, or that has adopted, a zero cap incurs a funds-transfer-related overdraft, the Reserve Bank would counsel the institution and may monitor the institution's activity in real time and reject or pend any Fedwire funds-transfer instruction that would cause an overdraft. Because the timing of book-entry securities transfers is not fully within the control of the receiving depository institution, the Board will allow depository institutions with caps of zero that have access to the discount window to continue to incur book-entry overdrafts but will require that such overdrafts be collateralized even if they are infrequent and modest.

E. Book-Entry Securities Transactions

1. *Collateralization*

A depository institution's funds and book-entry securities overdrafts are combined for purposes of determining an institution's compliance with its cap. Financially healthy depository institutions with positive caps that frequently exceed their caps by material amounts solely due to book-entry securities transactions are required to collateralize all of their book-entry securities overdrafts. To determine whether an institution exceeds its net debit cap due solely to book-entry securities activity, the Reserve Bank determines what activity in an institution's Federal Reserve account is attributable to funds transfers and other payment transactions and what activity is attributable to book-entry securities transactions. Book-entry securities balances are calculated by posting charges for original issues of Treasury securities and credits for interest and redemption payments for Treasury and government agency book-entry securities at 9:15 a.m. ET and posting credits and debits from transfers of book-entry securities as they occur. A book-entry securities overdraft occurs when an institution's book-entry securities balance, less any credit in its funds balance, is a net debit.

For the purposes of this policy, “frequently” means more than three occasions in two rolling two-week reserve-maintenance

periods, and “material amounts” means in excess of 10 percent of cap. For example, a depository institution with a \$50 million cap that meets the “frequent” and “material” tests and has a \$70 million overdraft—\$30 million due to funds transfers and \$40 million due to book-entry securities transactions—will be required to collateralize the entire \$40 million book-entry securities overdraft.

In addition, all financially healthy depository institutions with positive caps may *choose* to collateralize all or part of their book-entry securities overdrafts, even if they have not exceeded their caps. Such secured overdrafts shall not be included with those overdrafts measured against their caps. For example, a financially healthy depository institution with a \$50 million cap and a \$30 million overdraft—\$15 million due to funds transfers and \$15 million due to book-entry securities transfers—would ordinarily have excess capacity of \$20 million. Such an institution may increase its excess capacity by \$15 million by collateralizing all of its book-entry securities overdrafts (or may increase its excess capacity by less than \$15 million by collateralizing some portion of its book-entry securities overdrafts). Such an institution may not increase its cap of \$50 million by over-collateralizing its book-entry securities overdrafts or by collateralizing any part of its funds overdrafts. At the same time, if an institution that voluntarily collateralizes its book-entry securities overdrafts and those overdrafts become frequent and material, the institution will be required to collateralize 100 percent of its bookentry securities overdrafts.

Depository institutions have some flexibility as to the specific type of collateral they may pledge to secure book-entry securities overdrafts. The Reserve Banks will not give preference to a particular type of collateral, such as securities in transit, discount-window collateral, or stable pools of collateral, unless a preference is desired by the depository institution. All collateral must be acceptable to the Reserve Bank.

2. *Transfer-Size Limit*

Secondary market book-entry securities transfers on Fedwire are limited to a transfer size of \$50 million par value. This limit is intended to induce multiple deliveries to reduce position-building by dealers, a major cause of

book-entry securities overdrafts; participants may choose to limit their trade size as well. This limitation does not apply to—

- a. original issue deliveries of book-entry securities from a Reserve Bank to a depository institution or
- b. transactions sent to or by a Reserve Bank in its capacity as fiscal agent of the United States, government agencies, or international organizations.

Thus, requests to strip or reconstitute Treasury securities, or to convert bearer or registered securities to or from book-entry form, are exempt from this limitation. Also exempt are pledges of securities to a Reserve Bank as principal (e.g., discount-window collateral) or as agent (e.g., Treasury Tax and Loan collateral).

F. Interaffiliate Transfers

Although the institutions affiliated through common holding company ownership are not permitted to consolidate their wire-transfer activity and capital for the purpose of monitoring compliance with this policy, such institutions may engage in funds transfers over Fedwire that are intended to simulate consolidation among affiliated depository institutions and that create a pattern of daylight overdrafts up to the sending institution's net debit cap, provided the following conditions are met:

1. Each of the individual sending depository institutions' board of directors approves, at least once each year, the intraday extension of credit to the specified affiliate(s),¹⁵ and sends a copy of the directors' resolution to its Reserve Bank.
2. During the regular examination, the individual institution's primary federal supervisor reviews the timeliness of board-of-directors resolutions, the establishment by the institution of limits on credit extensions to each affiliate, the establishment by the institution of controls to ensure that credit extensions stay within

such limits, and notes whether credit extensions have in fact stayed within those limits.

The Board notes that the adoption of this policy regarding transfers among depository institution affiliates does not in any way change the treatment of depository institutions and their Edge and agreement corporation subsidiaries. The ability of a parent institution to fund its Edge or agreement subsidiaries on an intraday basis remains unchanged, so long as the parent remains within its own cap.

G. Fedwire Third-Party Access Policy

The Board will allow third-party access arrangements whereby a sending or receiving institution ("the participant") designates another depository institution or other entity ("the service provider") to initiate, receive, and/or otherwise process Fedwire funds transfers or book-entry securities transfers that are posted to the participant's reserve or clearing account held at the Federal Reserve, provided the following conditions are met:¹⁶

1. The participant retains operational control of the credit-granting process by (1) individually authorizing each funds or securities transfer or (2) establishing individual-customer transfer limits and a transfer limit for the participant's own activity, within which the service provider can act. The transfer limit could be a combination of the account balance and established credit limits. For the purposes of this policy, these arrangements are called "line-of-credit arrangements."
2. In funds-transfer line-of-credit arrangements, the service provider must have procedures in place and the operational ability to ensure that a funds transfer that would exceed the established transfer limit is not permitted without first obtaining the participant's approval. In book-entry securities transfer line-of-credit arrangements, the service provider must have procedures in place and the operational ability to provide the participant with timely notification of an

¹⁵ The provision of this policy statement that allows a holding company to establish caps for its depository institution subsidiaries does not apply to this requirement.

¹⁶ This policy also applies to third-party access arrangements in which an organization, including an office of the participant located outside the United States, acts as service provider by initiating, receiving, or otherwise processing Fedwire transfers on behalf of the U.S. participant ("foreign service provider").

incoming transfer that exceeds the applicable limit and must act upon the participant's instructions to accept or reverse the transfer accordingly.

3. Transfers will be posted to the participant's reserve or clearing account held at the Federal Reserve, and the participant will remain responsible for managing its Federal Reserve account, with respect to both its intraday and overnight positions. The participant must be able to monitor transfer activity conducted on its behalf.

4. The participant's board of directors must approve the role and responsibilities of a service provider(s) that is not affiliated with the participant through at least 80 percent common ownership. In line-of-credit arrangements, the participant's board of directors must approve the intraday overdraft limit for the activity to be processed by the service provider and the credit limits for any interaffiliate funds transfers.¹⁷

5. The Board expects all participants to ensure that their Fedwire operations could be resumed in a reasonable period of time in the event of an operating outage, consistent with the requirement to maintain adequate contingency backup capabilities as set forth in the interagency policy (FFIEC SP-5, July 1989). A participant is not relieved of such responsibility because it contracts with a service provider.

6. In cases where the service provider is not affiliated with the participant through at least 80 percent common ownership, the participant must be able to continue Fedwire operations if the participant is unable to continue its service-provider arrangement (e.g., in the event the Reserve Bank or the participant's primary supervisor terminates the service-provider arrangement).

7. The participant must certify that the arrangement is consistent with corporate

separateness and does not violate branching restrictions.

8. The participant must certify that the specifics of the arrangement will allow the participant to comply with all applicable state and federal laws and regulations governing the participant, including, for example, retaining and making accessible records in accordance with the regulations adopted under the Bank Secrecy Act.

9. The participant's primary supervisor(s) must affirmatively state in writing that it does not object to the arrangement.

10. The participant must have in place an adequate audit program to review the arrangement at least annually to confirm that these requirements are being met. In addition, in the case of an arrangement involving a foreign service provider, both the participant and the foreign service provider must have in place an adequate audit program that addresses Fedwire operations. Audit reports in English must be made available to the Federal Reserve and the participant's primary supervisor(s) in the United States.

11. In the case of a service provider located within the United States, the service provider must be subject to examination by the appropriate federal depository institution regulatory agency(ies).¹⁸ In the case of a service provider located outside the United States, the service provider must be subject to the supervision of a home-country bank supervisor. In its review of a proposed foreign-service-provider arrangement, the Federal Reserve will consider the extent to which the service provider's home-country supervisor (1) oversees banks on a consolidated basis, (2) is familiar with supervising payment systems activities, (3) is willing to examine the Fedwire operations at the service provider, and (4) has demonstrated a willingness to work closely with U.S. banking authorities in addressing supervisory problems. In addition, the home-country supervisor, the participant, and the service provider must agree to permit the participant's primary

¹⁷ In cases where a U.S. branch of a foreign bank wishes to be a participant in an arrangement subject to this policy, and its board of directors has a more limited role in the bank's management than a U.S. board, the role and responsibilities of the service provider should be reviewed by senior management at the foreign bank's head office that exercises authority over the foreign bank equivalent to the authority exercised by a board of directors over a U.S. depository institution.

¹⁸ The U.S. federal depository institution regulatory agency(ies) must be able to examine any aspects of the service provider as may be necessary to assess the adequacy of the operations and financial condition of the service provider.

supervisor(s) to conduct on-site reviews of the Fedwire operations at the foreign service provider.¹⁹ The participant and the service provider must agree to make all policies, procedures, and other documentation relating to Fedwire operations, including those related to internal-controls and data-security requirements, available to the Federal Reserve and the participant's primary supervisor(s) in English.

12. The participant and the service provider(s) must execute an agreement with the relevant Reserve Bank(s) incorporating these conditions.

The participant's Federal Reserve Bank is responsible for approving each proposed Fedwire third-party access arrangement. The directors of the Board's Division of Reserve Bank Operations and Payment Systems and Division of Banking Supervision and Regulation must concur with a proposed arrangement (1) in which the participant is not affiliated through at least 80 percent common ownership with the service provider and where the participant is owned by one of the 50 largest bank holding companies (based on consolidated assets) or (2) in which the service provider is located outside the United States. Approval of a foreign-service-provider arrangement would be conditioned on satisfactory findings of a review of both the participant's and the foreign service provider's Fedwire policies, procedures, and operations, which would be conducted by the Federal Reserve prior to the commencement of operations.

H. Monitoring

1. *Ex Post*

Under the ex post monitoring procedure, an institution with a net debit position in excess of its cap will be contacted by its Reserve Bank.²⁰ The Reserve Bank will counsel the institution,

discussing ways to reduce its excessive use of intraday credit. Each Reserve Bank retains the right to protect its risk exposure from individual institutions by unilaterally reducing Fedwire caps, imposing collateralization or clearing-balance requirements, holding or rejecting Fedwire transfers during the day until the institution has collected balances in its Federal Reserve account, or, in extreme cases, taking the institution off-line or prohibiting it from using Fedwire.

2. *Real Time*

A Reserve Bank will apply real-time monitoring to an individual institution's position when the Reserve Bank believes that it faces excessive risk exposure, e.g., from problem banks or institutions with chronic overdrafts in excess of what the Reserve Bank determines is prudent. In such a case, the Reserve Bank will control its risk exposure by monitoring the institution's position on a real-time basis, rejecting or delaying transfers if the account balance would otherwise be exceeded, and taking other prudential actions.

3. *Multi-District Institutions*

A depository institution that chooses to access Fedwire through accounts in more than one Federal Reserve District is expected to manage its accounts so that its aggregate net debit position across all accounts does not exceed its net debit cap. One Reserve Bank will act as administrative Reserve Bank and will have overall risk-management responsibilities for institutions maintaining accounts in more than one Federal Reserve District. In the case of families of branches and agencies of the same foreign bank, net debit cap compliance will be monitored by the Reserve Bank that exercises the Federal Reserve's oversight responsibilities under the International Banking Act.²¹ The administrative Reserve Bank may determine, in consultation with Reserve Banks in whose territory other U.S. agencies or branches of the same foreign bank are located and with the management of the foreign bank's U.S. operations, that branches and agencies outside its District either will not be permitted to incur overdrafts in Federal Reserve accounts or must allocate part or all of the foreign family's net

¹⁹ If a participant proposes to conduct its Fedwire processing at a foreign site outside the home country of the service provider, both the home-country and host-country supervisors would need to permit the participant's primary supervisor(s) to review the Fedwire operations.

²⁰ Even if the institution is not a state member bank, the Reserve Bank can make this contact when an overdraft occurs in a reserve or clearing account or when the institution is in a net debit position on a wire system that settles on the books of the Federal Reserve.

²¹ 12 USC 3101–3108.

debt cap (and the responsibility for administering part or all of the collateral requirement) to a Reserve Bank in whose District one or more of the foreign offices operate.²² For domestic depository institutions that have branches in multiple Federal Reserve Districts, the administrative Reserve Bank generally will be the Reserve Bank where the head office of the bank is located.

4. ACH Controls

To reduce risk in the ACH mechanism associated with the origination of ACH credit transactions by institutions that are experiencing financial difficulties, the Reserve Banks—

- a. will monitor ACH credit payments originated by such depository institutions;
- b. may require advanced funding or other assurance of payment or may reject payments if it appears the originating depository institution will not have sufficient funds on the settlement day; and
- c. will review origination patterns for all ACH originators of debit and credit payments.

In addition, a Reserve Bank may defer the availability of some or all of the credit from debit payments originated by an institution that the Reserve Bank believes will not have sufficient balances to pay return items when they are presented.

Further details on Federal Reserve ACH controls are set out in the Uniform ACH Operating Circular, available from each Reserve Bank.

II. POLICIES FOR PRIVATE-SECTOR SYSTEMS

A. Privately Operated Multilateral Settlement Systems

²² As in the case of Edge and agreement corporations and their branches, with the approval of the designated administrative Reserve Bank, a second Reserve Bank may assume the responsibility of managing and monitoring the net debit cap of particular foreign branch and agency families. This would often be the case when the payments activity and national administrative office of the foreign branch and agency family is located in one District, while the oversight responsibility under the International Banking Act is in another District. If a second Reserve Bank assumes management responsibility, monitoring data will be forwarded to the designated administrator for use in the supervisory process.

Introduction

Multilateral settlement systems, such as clearinghouses and similar arrangements, may produce important efficiencies in the clearance and settlement of payments and financial contracts. Participants in such systems, typically depository institutions, exchange payments for their own account or the accounts of their customers in a coordinated fashion and settle the resulting obligations on a multilateral, often net, basis.

A variety of credit, liquidity, and other risks can arise in the clearing and settlement process that institutions must manage in the normal course of business, regardless of the method of clearing and settlement. Existing supervisory standards are generally directed at ensuring that institutions establish appropriate policies and procedures to manage such risks. For example, Federal Reserve Regulation F directs insured depository institutions to establish policies and procedures to avoid excessive exposures to any other depository institutions, including exposures that may be generated through the clearing and settlement of payments.²³

However, the use of multilateral settlement systems introduces the risk that a failure of one participant in the system to settle its obligations when due could have credit or liquidity effects on participants that have not dealt with the defaulting participant. Multilateral settlement may, in some cases, also have the effect of altering the underlying bilateral relationships that arise between institutions during the clearing and settlement process. As a result, the incentives for, or ability of, institutions to manage and limit the risk exposures to other institutions, as required under Regulation F, may be reduced. In addition, in some cases, there may be no timely or feasible alternative to settlement through the multilateral system in the event that the system fails to complete settlement, due, for example, to a participant default. These factors may create added risks to participants in certain multilateral settlement systems relative to other settlement methods. As a result, a number of multilateral settlement systems and their participants have implemented a variety of risk-management measures to control these risks.

²³ See 12 CFR 206.

Clearinghouses also may generate systemic risks that could threaten the financial markets or the economy more broadly. The failure of a system to complete settlement as and when expected could generate unexpected credit losses or liquidity shortfalls that participants in the system are not able to absorb. Thus, the inability of one participant to meet its obligations within the system when due could lead to the illiquidity or failure of other institutions. Further, the disruption of a large number of payments and the resulting uncertainty could lead to broader effects on economic activity. In addition, as the Federal Reserve has established net debit caps and fees for daylight overdrafts, along with other risk-management measures for Federal Reserve payment services, the potential exists for intraday credit risks to be shifted from the Federal Reserve to private, multilateral settlement arrangements, either domestically or in other countries, that have inadequate risk controls.

The Board believes that these concerns warrant the application of a risk-management policy to those multilateral settlement systems that have the potential to raise systemic risks, particularly in cases where risks may not be adequately addressed by existing supervisory guidance on management of exposures to other depository institutions. The Board recognizes that multilateral settlement systems differ widely in terms of form, function, scale, and scope of activities. Thus, risk-management measures may be designed differently for different systems. This policy statement, therefore, is designed to permit market participants to determine the best means of addressing risks, within the guidelines provided. As a general rule, risk-management measures should be commensurate with the nature and magnitude of risks involved.

The Board's adoption of this policy in no way diminishes the primary responsibilities of participants in, and operators of, multilateral settlement systems to address settlement and other risks that may arise in these systems. In addition, the Board encourages all multilateral settlement systems to consider periodically cost-effective risk-management improvements, even if not specifically required under this policy. Insured depository institutions participating in multilateral settlement systems are also expected to limit any significant bilateral credit and liquidity exposures to other

institutions as required under Federal Reserve Regulation F.

Scope and Administration of the Policy

This policy statement applies to privately operated multilateral settlement systems or arrangements with three or more participants that settle U.S. dollar payments, including but not limited to systems for the settlement of checks, automated clearinghouse (ACH) transfers, credit, debit, and other card transactions, large-value interbank transfers, or foreign exchange contracts involving the U.S. dollar where the aggregate gross value of payments is expected to exceed \$5 billion on any day during the next 12 months.²⁴ Further, the policy does not apply to clearing and settlement systems for securities or exchange-traded futures and options, and is not intended to apply to bilateral relationships between financial institutions, such as those involved in traditional correspondent banking. The Board may also apply this policy to any non-U.S. dollar system based, or operated, in the United States that engages in the multilateral settlement of non-dollar payments among financial institutions and that would otherwise be subject to this policy.

The Board expects to be guided by this policy statement in taking action in its supervisory and operational relationships with state member banks, bank holding companies, and clearinghouse arrangements, including, for example, the provision of net settlement services and the implementation of the Bank Service Company Act.²⁵ Systems subject to this policy may be asked to provide to the Federal Reserve peak and daily average aggregate gross and net settlement data for the most recent 12-month period or calendar year, as well as peak and daily average settlement position data for individual participants.

²⁴ The gross value of payments settled refers to the total dollar value of individual payments or transactions that are settled in the system, which represents the sum of total debits or total credits to all participants *prior to* any netting of settlement obligations. "On-us" transactions that do not require interbank settlement, but may in some cases be processed by the system, may be excluded for purposes of these calculations. Where a system conducts multiple settlements per day, these settlements should be aggregated for purposes of this calculation if they are conducted among the same group of participants subject to the same rules and procedures.

²⁵ 12 USC 1861–1867.

Risk Factors and Risk-Management Measures

An analysis of settlement risks in any multilateral settlement system should begin with the identification of key risks and exposures. For purposes of this policy, the general categories of settlement risk include credit risk—the risk to participants or to the system that a participant will be unable to meet fully its settlement obligation; liquidity risk—the risk that participants or the system will have insufficient funds available to meet settlement obligations as and when expected; operational risk—the risk that operational factors in the settlement process may cause or exacerbate these credit or liquidity risks or disrupt the settlement of payments; and legal risk—the risk that legal uncertainties in the settlement process may cause or exacerbate these credit and liquidity risks.

Systems subject to the policy that exhibit one or more risk factors should assess whether their policies and procedures adequately address those specific risks, including consideration of the risk-management measures listed below. In general, risk-management controls should be proportional to the nature and magnitude of risks in the particular system. The Board does not expect that all of the specific risk-management measures listed below will be necessary or appropriate for all systems; moreover, there may be other risk-management measures that will address a particular risk factor. Systems that exhibit one or more risk factors may not need to implement any additional risk controls as a result of this assessment if existing risk controls adequately address the particular risk.

If necessary, the Board and its staff will work with systems to determine whether changes in their policies or operations are required and, if so, whether steps proposed by the system would adequately address the risk factor. In some cases, an operational change may mitigate a particular risk factor. In other cases, systems may need to develop or modify written rules, policies, and procedures that specify the rights and obligations of participants, as well as other relevant parties, such as settlement agents for the system, in the event that a settlement cannot be completed as and when expected. Such rules and procedures should be disclosed to all participants and their primary regulatory authorities.

To facilitate the analysis under this policy,

systems may need to develop the capability to simulate credit and liquidity effects on participants and on the system resulting from one or more participant defaults, or other possible sources of settlement disruption.²⁶ Systems may also need to test the operational capability to execute settlement-failure procedures, where these differ from normal settlement procedures. Documentation of any significant legal analysis or agreements relevant to risk management may also be appropriate.

(1) *Credit risk.*

Risk factors. A multilateral settlement system would give rise to credit risk if its rules or practices significantly increase or shift the bilateral obligations or credit exposures between participants in the clearing and settlement process. For example, a clearinghouse operator or agent that provides an implicit or explicit guarantee of settlement could shift bilateral exposures. Such a guarantee might be implemented through the establishment of a central counterparty for all transactions, or through other provisions in the system's rules, such as a guarantee of members' settlement obligations, third-party credit arrangements, or the system's ability to recover settlement-related losses from participants. Additionally, a system may expose participants to credit risk to one another, due for example, to agreements to mutualize any settlement losses.

Risk-management measures. Measures that are commonly used to mitigate credit risk in a multilateral settlement system and provide support for settlement guarantees include monitoring of participants' financial condition; caps or limits on some or all participants' positions in the system; and requirements for collateral, margin, or other security from some or all participants. Systems in which participants have significant bilateral exposures to one another or

²⁶ Such simulations may include, if appropriate, the effects of changes in market prices, volatilities, or other factors.

to the system, such as through loss-sharing agreements, may need to implement mechanisms for participants to control these exposures if they are significant. Use of settlement methods with same-day finality may also shorten the duration of credit-risk exposure in a system.

(2) **Liquidity risk.**

Risk factors. A multilateral settlement system would give rise to liquidity risk for its participants if a delay, failure, or reversal of settlement would be likely to cause a significant change in settlement amounts to be paid or received by participants on the settlement date. The degree of liquidity risk in a particular system is likely to be greater (1) the larger are gross payment flows relative to netted amounts to be settled; (2) the larger are participants' settlement positions relative to their available funding resources; (3) the later that participants would be notified of a settlement disruption relative to the timing of activity in the money markets and other funding channels, and (4) the greater the likelihood that a settlement failure of the particular system would be accompanied by abnormal market conditions.

Risk-management measures. One approach to mitigating liquidity risk is to implement measures to reduce significantly both the probability and the effect of a settlement disruption. For example, many of the measures described above that are commonly used to mitigate credit risk may reduce the probability and effect of a participant's inability to meet its settlement obligations when due. External liquidity resources available to the system and adequate operational contingency arrangements may also mitigate liquidity risk.

Some systems anticipate performing a recast of settlements in the event of a participant default, by recalculating multilateral net settlement obligations among participants. These systems are expected to assess, and where

necessary address, the liquidity impact on participants of such a procedure.²⁷ For example, timely notification of settlement failure before or during the period of active money market trading should permit participants readily to borrow funds to cover any shortfalls due to the recast. Individual participants may also take steps to limit their own liquidity exposures in the system or increase available liquidity resources.

(3) **Operational risk.**

Risk factors. Operational risks, such as those relating to the reliability and integrity of electronic data processing facilities used in the clearing and settlement process, are addressed in standard supervisory guidance for depository institutions and their service providers. Operational-risk factors for purposes of this policy statement include those that could hinder the timely completion of settlement or the timely resolution of a settlement disruption in a multilateral settlement system. For example, for a system that anticipates recasting settlement obligations in the event of a participant default, operational obstacles could make it difficult or impossible for participants to arrange settlement outside the system on a timely basis in the event of a settlement failure. As a result, those participants expecting to receive funds could face significant liquidity risk. In addition, in some cases, failure to complete settlement on a timely basis could change the rights of participants with respect to the underlying payments, creating potential credit or liquidity risks. For example, institutions that are unable either to return or to settle for checks presented to them on the same day may lose the right to return the checks

²⁷ For example, in a "recast" of settlements, some or all transactions involving the defaulting participant would be removed from the system's settlement process, to be settled or otherwise resolved outside the system. A revised multilateral settlement with recalculated settlement obligations would then be conducted among the remaining participants. In an "unwind," transactions or settlement obligations to be settled on the day of the default for all participants would be removed from the system.

for insufficient funds.

Further, certain risk-control procedures implemented by a particular system may themselves entail operational risks. The ability of a system to execute a recast of settlements, implement guarantee provisions, or access lines of credit may depend on the operational reliability of the system's facilities.

Risk-management measures.

Multilateral settlement systems and their participants typically mitigate the risk of operational failure in their daily processing activities through standard techniques, such as contingency plans, redundant systems, and backup facilities. For purposes of this policy statement, systems should ensure the reliable operational capability to execute procedures used to resolve a participant default or other settlement disruption as well as to implement other risk-management measures.

For example, if a system anticipates recasting settlements by excluding transactions of a defaulting participant, it should ensure that the system can perform any required processing, generate the necessary information, and provide the information to participants in a timely manner. To the extent that payments would be expected to be settled outside the system, procedures should be established to notify participants such that they have adequate time, settlement information, and operational capabilities to complete such settlements before the close of critical funds transfer systems. A system that does not anticipate recasting settlements but plans to settle all positions as and when expected should ensure that operational procedures to implement risk-management measures are in place, such as means of access to lines of credit in a timely manner.

(4) ***Legal risk.***

Risk factors. Legal risk may exist in a multilateral settlement system if there

is significant uncertainty regarding the legal status of settlement obligations or of the underlying transactions in the event of a settlement failure. Significant legal uncertainty could exacerbate efforts to achieve an orderly and timely resolution and could expose participants to significant credit and liquidity risks. For example, if the obligations of participants with respect to underlying transactions exchanged in the system have no enforceable legal status in the event of a system settlement failure, the ability of the participants to revert to other methods of settlement on a timely basis may be in doubt. Legal risk would also arise if the legal enforceability of any significant risk-management measures, netting agreements, or related arrangements, is not well supported.

Risk-management measures. Systems should address legal-risk factors, where significant exposures may arise, by ensuring that operating rules or other agreements between participants will be enforceable in the event of a settlement failure. As part of this process, systems may wish to obtain legal opinions as to the enforceability of its rules and agreements under applicable legal regimes. Additionally, when the transactions settled through the system are not otherwise covered by an established body of law, the system should ensure that the rights and obligations of the participants are adequately addressed through the system's rules or participant agreements.

Application of the Lamfalussy Minimum Standards

Certain multilateral settlement systems are also required to meet the Lamfalussy Minimum Standards.²⁸ These standards were designed to

²⁸ The *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Bank for International Settlements, November 1990), known as the Lamfalussy Report, recognized that netting arrangements for interbank payment orders and forward-value contractual commitments, such as foreign-exchange contracts, have the potential to improve the efficiency and the stability of interbank settlements through the reduction of costs along with credit and liquidity risks, provided certain

address the main risk factors that may be present in multilateral settlement systems and to provide confidence that such systems can settle all positions as and when expected in the event that a participant cannot meet its settlement obligations, thereby reducing substantially the risk that a default by one participant will cause defaults by others. To determine whether a system is also required to meet the Lamfalussy Minimum Standards, the Board will consider additional factors that include the following: settlement of a high proportion of large-value, interbank or other financial market transactions, such as foreign-exchange transactions; very large liquidity exposures that have potentially systemic consequences, such as by virtue of a high ratio of gross payments to net settlement obligations; or systemic credit exposures relative to participants' financial capacity.

Lamfalussy Minimum Standards for the Design and Operation of Privately Operated Large-Dollar Multilateral Settlement Systems.

1. Multilateral settlement systems should have a well-founded legal basis under all relevant jurisdictions.
2. Multilateral settlement system participants should have a clear understanding of the impact of the particular system on each of the financial risks affected by the netting process.
3. Multilateral settlement systems should have clearly defined procedures for the management of credit risks and liquidity risks which specify the respective responsibilities of the netting provider and the participants. These procedures should also ensure that all parties have both the incentives and the capabilities to manage and contain each of the risks they bear and that limits are placed on

the maximum level of credit exposure that can be produced by each participant.

4. Multilateral settlement systems should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single net debit position.
5. Multilateral settlement systems should have objective and publicly disclosed criteria for admission which permit fair and open access.
6. Multilateral settlement systems should ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.

Risk-management measures. For systems that the Board has determined are required to meet the Lamfalussy Minimum Standards, systems and their participants should consider the following risk-management measures: (1) to the extent that participants have significant credit and liquidity exposures to other participants, establish bilateral net credit limits vis-à-vis each other participant in the system; (2) establish and monitor in real-time system-specific net debit limits for each participant; (3) establish real-time controls to reject or hold any payment or foreign-exchange contract that would cause a participant's position to exceed the relevant bilateral and net debit limits; (4) establish liquidity resources, such as cash, committed lines of credit secured by collateral, or a combination thereof, at least equal to the largest single net debit position; and (5) establish rules and procedures for the sharing of credit losses among the participants in the netting system.²⁹

Alternative risk-management

conditions are met. That Report developed and discussed "Minimum Standards for Netting Schemes" (Lamfalussy Minimum Standards) and "Principles for Co-operative Central Bank Oversight" of such arrangements. These standards have been adopted by the central banks of the G-10 and European Union countries. The text included in this policy statement includes editorial modifications to the original standards.

²⁹ The term "largest single net debit position" means the largest intraday net debit position of any individual participant at any time during the daily operating hours of the netting system.

measures may provide an equivalent level of assurance that the Lamfalussy Minimum Standards are met, depending on the nature and scope of the system. However, the Board strongly encourages systems to develop real-time risk-management controls where necessary to provide an appropriate level of risk control. The Board may also encourage or require higher risk-management standards, such as the ability to ensure timely multilateral settlement in the event of multiple defaults, of individual systems that present a potentially high degree of systemic risk, by virtue of their high volume of large-value transactions or central role in the operation of the financial markets.

Offshore Systems

The Board has a long-standing concern that steps taken to reduce systemic risk in U.S. large-dollar payments systems may induce the further development of multilateral systems for settling U.S. dollar payments that are operated outside the United States. Such systems, if implemented with inadequate attention to risk management, may increase risks to the international banking and financial system. In addition, offshore arrangements have the potential to operate without sufficient official oversight.

As a result, the Board has determined that offshore, large-dollar multilateral settlement systems and multicurrency clearing and settlement systems should at a minimum be subject to oversight or supervision, as a system, by the Federal Reserve, or by another relevant central bank or supervisory authority. The Board recognizes that central banks have common policy objectives with respect to large-value clearing and settlement arrangements. Accordingly, the Board expects that it will cooperate, as necessary, with other central banks and foreign banking supervisors in the application of the Lamfalussy Minimum Standards to offshore and multicurrency systems. In this regard, the Principles for Co-operative Central Bank Oversight outlined in the Lamfalussy Report provide an important international framework for cooperation.

B. Private Delivery-Against-Payment Securities Systems

Private delivery-against-payment securities systems that settle on a net, same-day basis entail credit and liquidity risks for their participants and for the payments system in general. The Board believes that these systems should include risk-control features if they are to rely on Fedwire for ultimate settlement. The need for such risk controls is becoming increasingly important in view of these systems' potential for growth, their high volumes, and the possible future course of the Federal Reserve's payments system risk-reduction program, e.g., pricing intraday Fedwire funds and book-entry overdrafts.

Delivery-against-payment securities systems, as described below, are expected to adopt appropriate liquidity and credit safeguards in order to ensure that settlement occurs in a timely fashion and that the participants do not face excessive intraday risks. In view of the continuing evolution of these systems, the Board has established general guidelines rather than specifying the exact form such safeguards should take. Reversals or "unwinds" of funds and securities transfers, however, are not considered appropriate liquidity control measures.

The policy addresses four issues:

1. liquidity safeguards for ensuring settlement;
2. provisions for reversals;
3. credit safeguards, such as collateral and netting features; and
4. open settlement accounting.

These components, and the scope and regulatory implications of this policy, are described below.

Scope of the Policy

This policy is specifically targeted at large-scale private delivery-against-payment securities systems that settle their obligations on a net, same-day basis over Fedwire, either directly or indirectly. These systems settle securities transactions for their participants by

transferring securities and the accompanying payment obligations on the books of a clearing corporation or a depository institution operating the system and arrange for final settlement of the funds positions on a net basis at the end of the processing day. Settlement on a “net basis” means that the funds obligations are netted among all participants, so that a participant can settle obligations to or from many counterparties by making a single transfer to or from the system. “Same-day” settlement means that the appropriate funds and securities transfers are settled on the day that a delivery-against-payment request is entered into the system. “Large-scale” systems are those systems that routinely process a significant number of individual transfers larger than \$50,000 or that would permit any one participant to be exposed to a net debit position at the time of settlement in excess of its capital.

This policy applies to systems that function primarily as a means of transferring securities and funds between participants. If a firm or bank is providing clearing services to a customer, and these services focus primarily on the bilateral relation between the clearer and the customer, the firm or bank would not be viewed as a system under this policy. Moreover, at least initially, a system that is an integral component of a full-service bank, such that obligations that settle on an item-by-item basis are the direct obligations of the bank, will not be subject to this policy because of the existing supervisory oversight of a bank’s liquidity and credit resources.

This policy applies to systems in the United States that transfer debt and equity securities, including those not eligible for Fedwire. The policy does not apply to systems dealing with other financial instruments, such as futures and options.

This policy is directed at limiting the risks arising out of the intraday credit generated in private delivery-against-payment systems. The policy does not address other potential sources of risk in these systems, such as inadequate management or facilities. The Board expects that these systems will be subject to regulatory oversight because they are typically clearing agencies subject to supervision by the Securities and Exchange Commission, or because they are limited-purpose trust companies subject to state or federal banking supervision, or both. These supervisors have

broad responsibility for ensuring the safety and integrity of these systems.

Liquidity Safeguards

Because they give rise to the extension of intraday credit, private delivery-against-payment systems rely on payments by participants with net obligations to the system (“net debtor” participants) in order to make settlement payments to participants with net obligations due from the system (“net creditor” participants). In the absence of appropriate safeguards, the failure by a single participant with a net debit position may delay settlement of the system. The result of a system’s failure to settle in a timely manner will be that participants do not receive the transfers of funds and securities that they expected and that they, therefore, may not be able to conclude other transactions outside the system. Because settlement typically occurs at the end of the day, the system and net creditor participants will have relatively little time to react to any failure that may occur.

This policy seeks to ensure that private systems settle in a timely manner, so that participants can rely on the funds or securities obtained as a result of transfers through the system. The importance of ensuring reliable transfers is due in part to the fact that these systems generally allow participants to retransfer funds credits or securities acquired during the day. If, for example, a participant sold securities early in the day and later used his funds credits to purchase other securities, then a failure in the settlement of the earlier transaction could result in a failure of the settlement of the later transaction.

The Board believes that private systems should protect timely settlement by adopting safeguards that are commensurate with the risk of settlement failure. The Board recognizes that a private system relying on intraday credit will not be able to guarantee timely settlement of funds and securities transfers under all conceivable circumstances and, therefore, that such a system cannot make an absolute guarantee of settlement finality. At a minimum, however, a system must have sufficient safeguards so that it will be able to settle on time if any one of its major participants defaults. In addition, the Board strongly encourages systems to adopt settlement

safeguards beyond this required minimum.

Liquidity arrangements that will enable a system to make end-of-day settlement payments are crucial settlements safeguards. Liquidity safeguards adopted by private delivery-against-payment systems should include provisions that give the system access to sources of readily available funding that will support timely settlement in case a participant is unable to settle its obligation. Funding sources could, for example, include prearranged lines of credit or a pool of funds contributed by the participants. The system should limit, on an intraday basis, the size of potential net debit positions to ensure that these liquidity sources will be adequate.

Because settlement risks and structure may vary in different systems, the Board does not consider it appropriate to specify the exact structure of acceptable safeguards. One example of an appropriate liquidity safeguard may be a cap on the net debit funds position that may be incurred by an individual participant, which is tied to the liquidity resources available to the system and/or to the participant. If such a cap is used, it may be appropriate for it to be administered in a flexible manner, with due regard for liquidity and credit risks and for the efficient operation of the system.

Reversals

Currently, certain systems permit reversals of transfers of funds and securities to facilitate settlement if a participant defaults. By reversing transactions, the systems try to reduce the obligations of the defaulting participant. However, settlement with reversals will not ease the liquidity problems caused by a default; reversals will simply transfer a liquidity shortfall from the defaulter to another participant and will do so at the end of the day, when it may be difficult to arrange for alternate sources of liquidity. The return of securities, with the resulting reversal of a funds credit, may cause the participant receiving the returned securities to default on its obligations. Thus, settlement using reversals will not achieve this policy's objective, because participants will not be able to rely on transfers of funds and securities if transfers may be reversed.

Because the Board does not view reversals

as a satisfactory liquidity safeguard, the systems covered by this policy should not use reversals as a substitute for liquidity arrangements, such as those discussed above, in order to ensure timely settlement.

Credit Safeguards

As stated above, these systems effectively allow participants to use intraday credit when receiving securities. All participants may be affected by one participant's failure to repay this credit. The Board, therefore, believes that these systems should adopt clear loss-allocation rules and should minimize credit risks incurred through the system. Methods of reducing credit risk may vary in different systems. Appropriate methods include requiring contributions by all participants to a fund that may be used in the event of a default or requiring the pledging of a sufficient volume of marked-to-market collateral. The loss allocation schedule should not increase risks to the system. In particular, the system should calculate the loss resulting from a default on the basis of the net obligations of the defaulter rather than on the basis of the underlying gross obligations between the defaulter and its counterparties. Thus, the Board would find a loss-allocation scheme to be unacceptable if it reversed all transactions between the defaulter and other participants.

This policy, including the restriction on reversals, is not intended to prevent a system from allocating credit losses to the counterparty of a defaulter based on the business dealings between the counterparty and the defaulter. It may be appropriate and prudent for a system to have rules that would require participants who have dealt with the defaulter to be responsible, after settlement, for the related loss. These arrangements could well include returning securities to the counterparty to help absorb the loss.

Open Settlement Accounting

As delivery-versus-payment systems grow in size and volume, the timely and orderly completion of end-of-day settlements takes on an increased importance for the settlement of other large-dollar payments systems. As a general matter, the Board believes that it will be easier for market participants and

supervisors to monitor and protect against settlement risks if current information is readily available. Participants in a delivery-against-payment system should therefore have up-to-date information on their net position and on the settlement progress of the system, and appropriate market supervisors should have ready access to current intraday information on both the system's settlement and participants' positions. For those systems wishing to use Fedwire payments as a means of settlement, the Board encourages the use of Federal Reserve Bank net settlement services rather than individual wire payments that cannot be distinguished from all other Fedwire payments. This policy is in no way intended to broaden access to Federal Reserve services; neither Fedwire nor net settlement services will be available, as a general matter, to nonmember, nondepository institutions.

III. OTHER POLICIES

A. Rollovers and Continuing Contracts

The Board believes that the use of market innovations, such as federal funds or Eurodollar rollovers or continuing contracts, to reduce daylight overdrafts in Federal Reserve accounts and on the New York Clearing House's Clearing House Interbank Payments System (CHIPS) is consistent with the Board's policy concerning daylight overdrafts. The Board urges market participants to consider using such innovations for these and other financial instruments where feasible. In doing so, participants should be mindful that implementing changes of this type may involve incremental costs, at least transitionally, and modified risk positions. Accordingly, participants should evaluate these factors and take them into account when selecting and negotiating with counterparties.

Many overnight interbank federal funds and other similar purchases and sales are negotiated in the morning with the funds being sent over Fedwire in the afternoon. Typically, the previous day's overnight borrowings are returned to the seller in the early morning, thus leaving a midday time gap of three or more hours between the morning repayment and the receipt of that same day's new borrowing. Often these transactions are between the same two banks for the same amount. The funding

time gap can contribute to daylight overdrafts for the borrowing institution and create risk to Reserve Banks.

Rollovers are interbank overnight transactions where the principal does not change and is not returned the next day to the seller but, instead, is rolled over for the next overnight period. The overnight interest rate is negotiated daily between buyer and seller. The maturity is one business day, or no maturity is specified, and the arrangement may be cancelled at any time by either party. The Board understands that national bank lending limits would not apply to federal funds transactions that have a maturity of one business day or no stated maturity and require no advance notice for termination. Because the rollover procedure eliminates the daily movement of principal on Fedwire and the corresponding time gap that could otherwise exist between repayment of the previous day's borrowings and receipt of new reborrowing, daylight overdrafts are reduced.

Continuing contracts are similar to rollovers. With a rollover, the size of each day's sale is the same. With a continuing contract, the size of each day's sale can vary, and only the difference in principal from the previous day's borrowing is moved over Fedwire or CHIPS. Such arrangements reduce the size of the daily movement of principal on Fedwire and CHIPS and also eliminate the time gap that could otherwise exist between repayment of the previous day's borrowings and receipt of new reborrowing, thereby reducing daylight overdrafts in Federal Reserve accounts or net debits on CHIPS. When the same maturity conditions apply to a continuing contract as apply to a rollover (one business day or unspecified maturity and cancellation at any time by either party) national bank lending limits do not apply.

Each participant should satisfy itself that it has the flexibility to negotiate amounts, rates, and maturity options before using these practices for federal funds, Eurodollars, or other financial instruments. Either of these practices, rollovers or continuing contracts, can reduce daylight overdrafts or intraday net debits, and their prudential use by the banking industry is consistent with the Federal Reserve's policy of reducing intraday exposures on Fedwire and CHIPS. When borrowing banks reduce their daylight overdrafts by use of these practices, some extra

operational costs and risks may be incurred by either party compared to current arrangements in the overnight market. For example, sellers of federal funds and other instruments may have to develop alternative audit-trail procedures and may accept some additional risk of repayment since funds would not be returned each day before they would be relent. In addition, buyers of federal funds and other instruments may experience some extra initial operating costs to set up rollover arrangements between themselves and lending banks and may have to pay a higher rate to induce lenders to commit their funds for a longer time. However, these costs and risks, if any, should be reflected in the rate or rate spread received and paid. Although it is unclear whether rates on daily interbank funds transactions will fall relative to rates paid for rollovers, continuing contracts, or term funds, or whether the reverse will occur, the Board believes that the negotiation of terms relative to the use of these arrangements should be left to the free operation of the private market.

The Board also supports efforts to encourage timely return of overnight federal funds and other borrowings and encourages operational improvements that would consistently allow timely receipt of funds purchased soon after a seller negotiates a sale. Similar arrangements and industry standards were suggested for federal funds by the American Bankers Association in July 1986.